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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,350	02/09/2005	Sergey Vasilievich Marutian	P06835US00	2639

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DES MOINES, IA 50309-2721

EXAMINER	
BAREFORD, KATHERINE A	

ART UNIT	PAPER NUMBER
1715	

NOTIFICATION DATE	DELIVERY MODE
03/30/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patatty@ipmvs.com

Office Action Summary	Application No.	Applicant(s)	
	10/500,350	MARUTIAN ET AL.	
	Examiner	Art Unit	
	Katherine A. Bareford	1715	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 February 2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The amendment of February 10, 2011 has been received and entered. With the entry of the amendment, claims 1-6 and 8 have been canceled, and claim 7 is pending for examination.

Claim Rejections - 35 USC § 112

2. The rejection of claim 6 under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement is withdrawn due to the cancellation of claim 6 by the amendment of February 10, 2011.

3. The rejection of claim 8 under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for plunging into an aluminum alloy melt at a temperature of 660-680 degrees C, and for 70-80 seconds, does not reasonably provide enablement for plunging at a temperature of 650-660 degrees C and for 80-120 seconds is withdrawn due to the cancellation of claim 8 by the amendment of February 10, 2011.

4. The rejection of claim 6 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention is withdrawn due to the cancellation of claim 6 by the amendment of February 10, 2011.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gierek et al (US 4070210) in view of Rallis (US 4655852) and Japan 50-005213 (hereinafter '213).

Claim 7: Gierek teaches a method of applying aluminum alloy coatings on cast iron and steel products. *Column 2, lines 35-65 and column 5, lines 25-26 and 44-45.* Gierek teaches that the product is first prepared for coating. *Column 5, lines 25-35 (such as*

preheating and cleaning before coating). Gierek indicates that preheating is optional, however. *Column 2, lines 58-60 (products "may" be preheated).* Gierek then teaches that the prepared product is then plunged into a hot dip aluminum alloy melt bath to coat the product with the aluminum alloy. *Column 5, lines 25-35, for example and column 2, lines 35-65 (this provides simultaneous heat treatment from the molten bath and coating).* The temperature of the bath can be 550-950 degrees C, such as 550 to 650 degrees C. *Column 2, lines 50-60 and column 5, lines 25-30.* Gierek further teaches that the bath can include aluminum alloyed with metal such as zinc, silicon, magnesium and tin materials. *Column 2, lines 50-55.* Gierek provides that the aluminum coatings can be applied without flux when desired. *Note Example VI, column 5, lines 25-40 where the coating is applied without any flux treatment as compared to Example VII, column 45-50, where a flux treatment is applied.* Gierek further provides that the time of plunging can be 15 seconds to 30 minutes. *Column 2, lines 50-60, including 1-10 minutes, column 4, lines 40-45, or 30 seconds to 10 minutes, column 4, lines 5-10.* Therefore, the time in the melt can be in the range of 70-80 seconds, since In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

Gierek provides all the features of this claim except (1) the pretreatment with jet abrasive followed by the next step of plunging, (2) precise temperature of the melt bath

and the precise amounts of zinc, silicon, magnesium, and tin to be used in the aluminum melt.

Rallis teaches a method of applying aluminum alloy coatings on steel products. *Column 2, lines 1-10, 34-50 and 64-68.* Rallis teaches that the product is first prepared for coating. *Column 2, lines 10-40 (heat treating) and column 6, lines 40-60 (heat treating and cleaning before coating).* The cleaning preparation can include grit blasting (which would be a jet abrasive) the product. *Column 6, lines 40-60.* Rallis then teaches that the prepared product is then plunged into a hot dip aluminum alloy melt bath to coat the product with the aluminum alloy. *Column 6, lines 55-68, for example and column 2, lines 35-50 and 64-68.* The temperature of the bath can be 1000 to below 1341 degrees F (approximately 538 to 727 degrees C). *Column 2, lines 34-40.* Rallis further teaches that the bath can include aluminum alloyed with zinc, silicon, magnesium and tin materials. *Column 2, line 64 through column 3, line 5 (from a selection of the materials given).* Applicant has now claimed that the process is "consisting of" the steps of "preparing a surface of the product by jet-abrasion; and then plunging the prepared product into an aluminum melt . . ." (claim 7). The Examiner understands this to mean that a provided product must be prepared by jet-abrasion and then plunged into the aluminum melt without any intervening steps. Rallis would at least suggest this sequence because it provides a heat treated product (*note for example column 7, lines 5-12*), and then degreasing and grit blasting followed by dipping into a molten aluminum bath (*column 7, lines 10-15*). This would at least suggest that grit blasting (jet abrasion) can be followed by plunging with

no intervening steps because (1) grit blasting is the last step taught before plunging, or (2) since "degreasing and grit blasting" are described as occurring before plunging then it would be expected that either degreasing or grit blasting could occur as the final step before plunging with an expectation of similar results, or (3) since no particular limitation is provided on the "preparing to product surface by jet-abrasion" the "jet-abrasion process" could be considered as reading on the combination of "degreasing and grit blasting".

Moreover, '213 teaches that a desirable aluminum alloy composition for improved corrosion resistance includes, by weight, 2-18 % silicon, 2-8 % zinc, 0-2% magnesium and 0.1-1.5% Sn. *See the Abstract, and page 2 of the translation.* The Examiner notes that while the English language abstract refers to 0.5% copper in the alloy, this is a typographical error, and that '213 teaches 0-5% copper (which therefore means that no copper can be used), (*as shown on page 61, 1st column in Japanese; page 2 of the translation*) where " . . . Si 2-18%, Zn 2-8%, Cu 0-5%, Mg 0-2 % , Sn 0.1-15%. . . " is described, and also notes in the example in the abstract where 0.02 % copper is used which is below 0.5 % copper .

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Gierek to (1) provide that the "cleaning" process before coating provides grit blasting (jet abrasive treatment) immediately before plunging into the aluminum melt as suggested by Rallis with an expectation of desirable cleaning results, because Gierek teaches to provide a "cleaning" process before aluminum alloy

melt coating and Rallis provides that it is well known for "cleaning" to include grit blasting when preparing a surface for aluminum alloy melt coating that would occur just before the aluminum alloy melt coating. (2) It would further have been obvious to modify Gierek in view of Rallis to optimize the temperature of the melt bath for the specific aluminum alloy used given that Gierek teaches a temperature range of approximately 550 to 950 degrees C, including 650 degrees C, and where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990). Furthermore, it would have been obvious to modify Gierek in view of Rallis to perform the hot dip coating of the aluminum alloy using an alloy with the components and range taught by '213 with an expectation of providing a desirably corrosion resistant plated article, because Gierek teaches a desirable method for providing hot dip coating of an aluminum alloy on an iron or steel product using an aluminum alloy that can contain aluminum and alloying metal such as zinc, silicon, magnesium and tin and Rallis also teaches to providing hot dip coating of an aluminum alloy on a steel product using an aluminum alloy that can contain aluminum and zinc, silicon, magnesium and tin, and that such alloy materials can be added in combination, and '213 teaches a desirable aluminum alloy containing aluminum, zinc, silicon, magnesium and tin for improved corrosion protection. It would further have been obvious to optimize within the taught range of '213 to determine the optimum or workable ranges by routine experimentation. See In re Aller,

200 F.2d 454, 105 USPQ 233 (CCPA 1955). The Examiner understands the ranges given in '213 to be in weight percent as the description is in the conventional format for describing weight percent of alloys and as page 2 of the translation indicates that the percentages are in weight percent. While applicant in the specification appears to be taking the position that alloys outside the claimed ranges and temperatures do not provide the claimed results, apparently arguing unexpected benefits, the Examiner notes that no results have been shown for an alloy containing aluminum, zinc, silicon, magnesium and tin in amounts just outside the claimed ranges, with a showing of unexpected results within the ranges. Rather the comparative data of Table 1 is to alloys missing some ingredients altogether (while the cited reference to '213 suggests alloys specifically containing Si, Zn, Mg and Sn), and as to Table 2 only a single point of ingredients is shown, not the ranges as claimed, and therefore unexpected results are not shown for the temperature range (Note MPEP 716.02(d), unexpected results must be commensurate in scope with what is claimed, note In re Peterson, 315 F.3d 1325, 1329-31, 65 USPQ2d 1379, 1382-85 (Fed. Cir. 2003) (data showing improved alloy strength with the addition of 2% rhenium did not evidence unexpected results for the entire claimed range of about 1-3% rhenium)).

8. The rejection of claim 6 under 35 U.S.C. 103(a) as being unpatentable over Gierek et al (US 4070210) in view of Rallis (US 4655852), Japan 50-005213 (hereinafter '213) and

the admitted state of the prior art is withdrawn due to the cancellation of claim 6 by the amendment of February 10, 2011.

Response to Arguments

9. Applicant's arguments filed February 10, 2011 have been fully considered but they are not persuasive.

(A) The 35 USC 112, first and second paragraph rejections and the 35 USC 103(a) rejections as to claims 6 and 8 have been withdrawn due to the cancellation of claims 6 and 8.

(B) Applicant has stated in the Remarks of February 10, 2011 that they do not have an English translation of the Japanese patent (the Examiner understands this to be referring to Japan '213) (page 3). The Examiner notes, however, that a full English translation of Japan '213 was provided to applicant on March 9, 2009 (attached to a PTO-90C form, along with a PTO-892 form noting this translation).

(C) As the outstanding 35 USC 103(a) rejection of claim 7 using Gierek, Rallis and Japan '213, applicant argues that it would not be obvious to modify Gierek to achieve applicant's invention, with applicant's invention coating a very specific aluminum alloy composition at a narrow temperature range for a small period of time without the use of flux, producing a coated product with a plastic coating of high corrosion resistance, and specifically not obvious to combine the cited references to achieve this goal of plasticity of the coating on the product. The Examiner has reviewed this argument,

however, the rejection is maintained. It remains the Examiner's position that the combination of the art as cited provides the suggestion to hot dip an alloy that can be in the claimed range with the same pretreatment, temperature range and time period for the reasons discussed in the rejection above. While applicant is of the position that the claimed process provides a desirably plastic composition, the Examiner notes that it is not necessary for the prior art to desire to get a plastic coating, as long as the same steps for getting such a coating are provided. The fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). Furthermore, the Examiner notes that as discussed in the rejection above, if applicant is of the position that their specific alloy, temperature range, time period and pretreatment provide an unexpectedly plastic coating in that specific combination of conditions, such a showing has not been made. While applicant in the specification appears to be taking the position that alloys outside the claimed ranges, temperatures and times do not provide the claimed results, apparently arguing unexpected benefits, the Examiner notes that no results have been shown for an alloy containing aluminum, zinc, silicon, magnesium and tin in amounts just outside the claimed ranges, with a showing of unexpected results within the ranges. Rather the comparative data of Table 1 is to alloys missing some ingredients altogether (while the cited reference to '213 suggests alloys specifically containing Si, Zn, Mg and Sn), and furthermore, seems to show that desirably plastic

results occur with a different alloy (note the aluminum/zinc/silicon/magnesium alloy (second to last) and the aluminum/zinc/silicon/magnesium/tin alloy (last, in the claimed range) both give results of the same minimum diameter of mandrel and character of the corrosion). Moreover, only one point of comparison is shown, with one specific alloy in the claimed range in Table 1 (Note MPEP 716.02(d), unexpected results must be commensurate in scope with what is claimed, note In re Peterson, 315 F.3d 1325, 1329-31, 65 USPQ2d 1379, 1382-85 (Fed. Cir. 2003) (data showing improved alloy strength with the addition of 2% rhenium did not evidence unexpected results for the entire claimed range of about 1-3% rhenium). As to Table 2 only a single point of ingredients is shown, not the ranges as claimed, and therefore unexpected results are not shown for the temperature range (Note MPEP 716.02(d), unexpected results must be commensurate in scope with what is claimed, note In re Peterson, 315 F.3d 1325, 1329-31, 65 USPQ2d 1379, 1382-85 (Fed. Cir. 2003) (data showing improved alloy strength with the addition of 2% rhenium did not evidence unexpected results for the entire claimed range of about 1-3% rhenium)). Moreover, no specific comparison as to time of immersion is made with alloys in the claimed range at the same temperature, for example, and therefore no showing has been made of unexpected benefits as to time of immersion.

Applicant specifically argues that it would not be obvious to look to Rallis since the goals of applicant's and Rallis' process are contrary to one another. Applicant argues that as to the optimizing of the temperature of the melt bath for the specific

aluminum alloy used in the bath, neither Gierek or Rallis use the specific aluminum alloy set forth in claim 7, such that the temperature ranges of Gierek and Rallis are meaningful only for the specific alloys disclosed therein and are meaningless for applicant's different alloy composition, and Japan '213 does not overcome this deficiency, since the Japanese reference has no temperature ranges for the alloy bath. Similarly, applicant argues, the optimum bath time is also related to the specific aluminum alloy and the times disclosed in Gierek and Rallis are irrelevant since they each use a different alloy and Japan '213 does not provide any disclosure on bath times. The Examiner has reviewed these arguments, however, the rejection is maintained. As discussed in MPEP 2141.01(a)(I), analogous art is considered under the following analysis, ""Under the correct analysis, any need or problem known in the field of endeavor at the time of the invention and addressed by the patent [or application at issue] can provide a reason for combining the elements in the manner claimed. " KSR International Co. v. Teleflex Inc., 550 U.S. ___, ___, 82 USPQ2d 1385, 1397 (2007). Thus a reference in a field different from that of applicant's endeavor may be reasonably pertinent if it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his or her invention as a whole." Here, while Rallis may not be concerned with plasticity, it demonstrates conventional features in the art for coating ferrous articles with hot molten aluminum alloys (which is what applicant is also doing), and as been cited as to the (1) well known features of cleaning in this art and (2) the known combination of multiple alloying

elements with the aluminum in the art. One concerned with plating ferrous materials with aluminum alloys would be suggested to see what was known and conventional in the art, including how to clean and materials that can be added to form alloys. Similarly, given that applicant also has a desire for corrosion resistance (specification as filed, first paragraph, page 1), one would be concerned with finding aluminum alloys known to provide desirable corrosion resistance (as provided by Japan '213). As to the optimizing of the temperature of the bath within the temperature range given by Gierek and time of immersion given by Gierek when using the alloy taught by Japan '213, the Examiner is of the position that given the multiple possible alloy materials that can be added as taught by Gierek (including all the alloy materials taught by Japan '213) and all used within the temperature range and immersion time taught by Gierek (column 2, lines 50-60), and also given the teaching of Rallis of the well known combining of alloy elements with aluminum when making aluminum alloy baths for plating, one of ordinary skill in the art understands that the temperature ranges given by Gierek would be expected to be usable for any aluminum alloy with listed alloy materials, with of course optimization from within the given ranges of temperature and time of immersion (column 3, lines 5-15).

Applicant furthermore argues that Gierek does not provide the specific alloy, and provides a wide range of temperature and a wide bath time, with no examples using the claimed temperature range, and even if the alloy of Japan '213 is used, substantial experimentation would be necessary to find applicant's preferred narrow

temperature range and short bath time. The Examiner has reviewed these arguments, however, the rejection is maintained. As to the combination with '213, this would be obvious as discussed above and in the rejection above. As to the substantial experimentation as to bath temperature and bath time, Gierek gives specific ranges and suggests to optimize within these ranges (column 3, lines 5-10) and case law provides that In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976). Also note MPEP 2144.05(II)(A) "Generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955)". As noted above, applicant has made no showing of unexpected benefits for his ranges.

Applicant also argues that since Gierek does not disclose applicant's alloy, Rallis teaches away from applicant's plasticity goal and Japan '213 has no time or temperature limitations, a person skilled in the art would not combine these references to achieve applicant's invention, absent hindsight. The Examiner has reviewed these arguments, however, the rejection is maintained. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a

reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Here, it is the combination of the art that provides the claimed features. As previously noted, the combination does not have to be made to provide a more plastic coating, it can be to provide a desirably corrosion resistant coating, for example, and the combination is proper, using analogous art, as discussed above.

Applicant further argues that while Rallis teaches a temperature of a bath that covers applicant's temperature range, the time for coating is substantially longer, and it is improper to consider the Rallis bath temperature apart from the bath time, and teaches away from the time limitation of claim 7. The Examiner has reviewed this argument, however, the rejection is maintained. Rallis has not been cited as to the temperature or time for coating (the primary reference to Gierek provides these features), but rather as to what are conventionally known cleaning and alloy features in the art. While the prior art must be analyzed for it complete teachings, the teachings of Rallis as to different possible coating conditions (rather than Gierek) do not mean that the coating method of Gierek cannot be used or considered or features not limited to the applicant method cannot be combined, since "the prior art's mere disclosure of more than one alternative does not constitute a teaching away from any of these alternatives because such disclosure does not criticize, discredit, or otherwise discourage the

solution claimed…." In re Fulton, 391 F.3d 1195, 1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004).

Applicant further argues that as to the use of Japan '213, there is no evidence that it has any more corrosion resistance than the coated article of Gierek or Rallis, and therefore no rational underpinning for modifying either of the references as taught by Japan '213, such as better corrosion resistance. Applicant further argues that Japan '213 is concerned with an automotive radiator with corrosion resistance, and no evidence that plasticity of coating is needed or desirable. The Examiner has reviewed these arguments, however, the rejection is maintained. Firstly, even if Japan '213 was simply to provide a corrosion resistant alloy that was just as corrosion resistant as the coated article provided by Gierek or Rallis (and the Examiner notes that Rallis actually teaches combinations of alloy material in general that would overlap that taught by Japan '213, see column 2, line 64 through column 3, line 5), it would still be acceptable to use the alloy of Japan '213 as the alloy, based on the acceptable motivation as discussed in MPEP 2143(B), Simple substitution of one known element for another to obtain predictable results, since the alloy of Japan '213 would provide the predictable result of corrosion resistance. Secondly, as to the possible motivation of better corrosion resistance using the specific alloy of Japan '213, Japan '213 discusses how the addition of Zn, Si and Mg and Sn in amounts overlapping the claimed amounts can provide a desirably corrosion resistant coating for engine antifreezing solution conditions (page 8-10 of the translation), thus indicating that special improvements would be expected

under such conditions. Given that Gierek teaches that it can be desirable to provide corrosion resistance to various parts including parts for internal combustion engines (column 4, lines 40-45), flanges and sockets (column 3, lines 35-40), and threaded and unthreaded connectors (column 3, lines 60-65), the suggestion to treat parts so that there would be beneficial protection against antifreezing solution would be an obvious use of the process, given that Japan '213 notes that there is a desire for protection against antifreezing solution when providing aluminum alloys for automotive radiators, and the Examiner notes that other parts can also be exposed to such materials, such as screws or bolts.

Applicant further argues that none of the cited references provide an enabling disclosure for the specific alloy composition, temperature and time set forth in claim 7. The Examiner has reviewed these arguments, however, the rejection is maintained. As noted above, it is the Examiner's position that the combination of references is proper and it is this combination that provides the entire features of the present invention.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine A. Bareford whose telephone number is (571) 272-1413. The examiner can normally be reached on M-F(6:00-3:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy H. Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Katherine A. Bareford/
Primary Examiner, Art Unit 1715